Notion of "virtual library" developing as medical schools cope with rising journal costs

Rhonda Birenbaum

In Brief • En bref

The skyrocketing cost of medical and scientific journals has caused most Canadian universities to cut their subscription lists by an average of 20% over the last 3 years. Researchers say this causes delays in getting pertinent articles and journals and is an impediment to their work, but on the positive side the continuing decline in library holdings is stimulating libraries and researchers alike to use alternative strategies when seeking information, including computer databases, e-mail and the Internet.

La flambée du coût des journaux médicaux et scientifiques a obligé la plupart des universités du Canada à réduire leurs listes d'abonnements de 20 % en moyenne au cours des trois dernières années. Des chercheurs affirment que ces réductions retardent le moment où ils obtiennent des articles et des journaux pertinents et nuisent à leur travail. Ces réductions ont toutefois du bon : la chute continue des fonds bibliothécaires incite les bibliothèques et les chercheurs à recourir à d'autres moyens de recherche d'information, y compris les bases de données, le courrier électronique et l'Internet.

On the desk of Professor Doug Gray, an Ottawa medical researcher who cloned the gene involved in lung cancer, is a list of 12 scientific articles he would like to read. Based on the titles, Gray believes these articles will contribute to his knowledge and further his research. But they are in journals his university library no longer carries, and he's not sure he will get around to finding them or ordering copies from another library. That means he may not read them at all.

"I haven't got time to get them," he laments, his list of unread articles yet another casualty in the clash bethe rising cost of medical and scientific journals.

Increases in the cost of journals

tween medical library budgets and

Increases in the cost of journals are outstripping the ability of most institutions to pay. The Brandon and Hill lists, which librarians use as benchmarks for developing library collections, note that the average price per journal subscription increased by 1280% between 1965 and 1995.

This trend has been exacerbated by the falling value of the Canadian dollar. Since most medical and scientific publications are imported, the currency exchange rate adds to an already-difficult situation.

In Canada, cancellation of journal subscriptions has been widespread and extensive. According to a study by the Association of Canadian Medical Colleges (ACMC) Committee on Medical School Libraries, the impact of journal cancellations at Canada's medical schools in the past 3 years has been significant: 13 of the 16 medical libraries have cut the number of titles available, 7 of them by more than 20%. Overall the decline ranges from 9% at the University of Alberta and Dalhousie to 35% at the University of Saskatchewan.

During the period of the ACMC study, library collections at the universities of Toronto (U of T), Laval and Sherbrooke increased by 4%, 2% and 10% respectively. But in 1995, even the U of T — where university policy has long protected the budget for the science and medicine library — cancelled 58 journal subscriptions, and Gwynneth Heaton, head of the Science and Medicine Library, says more are on the chopping block this year. Large increases in the cost of journal subscriptions are making cuts impossible to avoid, she adds. "We can no longer afford them all," says Heaton of the university's serials collection, reputed to be the largest in Canada.

Thus far the U of T's cuts have focused on journal duplication, but librarians are now developing lists of titles that are not available elsewhere on campus but will be cancelled as the next university budget is prepared.

The University of Calgary has been cutting its subscription lists for

Rhonda Birenbaum is a freelance writer living in Nepean, Ont.

© 1996 Rhonda Birenbaum

some time. According to Alan Mac-Donald, director of information services and former university librarian, journal subscriptions peaked at around 15 000 in the 1980s, when about 400 cost \$1000 or more per year. Calgary now subscribes to about 12 000 journals but more than 1200 of them cost \$1000 or more.

Like the universities, the Canada Institute of Scientific and Technical Information recently pruned its journal holdings. Brenda Hurst, the manager of acquisitions, says the national repository for scientific journals, books and monographs shaved \$1 million from its budget in each of the last 2 years. "I don't think there's an

is regrettable. "You're left with a library that has a reasonable holding of general-interest journals and a lesser complement of specialized scientific journals," he says. "But we [researchers] all have to keep up with the latest literature if our experiments are going to be at the cutting edge, using the best possible technology and the latest information."

Gray is adamant that the declining accessibility of journals is an "impediment to research itself."

Deborah Scott-Douglas, manager of information services for the CMA, says libraries have a responsibility to provide quality education and information. "If physicians, for instance,

The declining accessibility of journals is an "impediment to research itself."

- Prof. Doug Gray

academic library left in Canada that has not had significant cuts," she says

The high price of scholarly publications has the Canadian Association of Research Libraries (CARL) concerned. CARL, with the Association of Universities and Colleges of Canada, set up a task force on academic libraries and scholarly communications to study the situation. Its report, released last summer, maintains that if the cuts in library holdings continue, research collections will not keep pace with scholarly output. The academic library system is in "danger of collapse," the report states.

"There has never been so much information out there," declares David McCallum, CARL's executive director, "but never has it been harder to find or so expensive to obtain."

Gray says there is an undeniable effect on research, and the situation

can't get suitable information [from the library] they're not keeping upto-date with new procedures, practices or technology," she says. "Over time we'll see an erosion of the foundation of knowledge."

Ten years ago Scott-Douglas participated in a major serials review at the University of Alberta, Canada's second biggest library system after the U of T. She remembers "tremendous pain" during that period as librarians, university faculty and other researchers grappled with ways to trim library holdings and reduce budgets.

Similar serials and collection reviews are being undertaken in university libraries nationwide. They usually begin with a survey of library usage and end with a list of materials to be cut. In between, faculty members are polled and repolled for the names of journals (or books) they consider essential. Eventually the library establishes a core of untouch-

able inventory. This core is then supplemented according to special research or teaching needs — and what the budget can bear.

Elizabeth Reiker, director of the Vanier Science Library at the University of Ottawa, says economic reality is forcing libraries to shift from "just-in-case to just-in-time" — focusing on users' immediate needs rather than building research collections.

When libraries no longer stock what researchers or students need, interlibrary loans skyrocket. A survey of libraries in both Canada and the US by the US-based Association of Research Libraries found that the number of interlibrary loans has risen 99% in the last 9 years.

On the positive side, increased demand has forced libraries to improve interlibrary loan service. The John W. Scott Health Sciences Library at the University of Alberta, for example, delivers documents within 48 hours. Sandra Shores, head of instructional programs, says this is a significant improvement over the 6-week wait to which faculty and students were accustomed not long ago.

Despite the improvements, researchers still find interlibrary loans less than satisfying. Researchers are frustrated, Shores admits, because such loans are no match for the immediacy of finding a journal on the shelf.

"A half-hour or 24 hours [for interlibrary loans], it's not a matter of life and death," concedes Cecil Yip, PhD, vice-dean of research in the U of T's faculty of medicine, but the process is inconvenient. Besides, Yip adds, research money is now diverted to pay interlibrary loan charges as researchers attempt to access information no longer available at their own university.

Gray also is frustrated by the time it takes to do the searching: "I could have been in my lab."

The University of Ottawa's Reiker acknowledges that nobody likes the

current situation: "We know we're cutting things people need."

However, the news isn't all bad. The continuing decline in library holdings is stimulating researchers and librarians alike to find alternative strategies for getting information. Browsing electronic databases has replaced the comfortable habit of thumbing through books. (Shores believes undergraduates now browse by computer more than former undergraduates ever thumbed through paper, and data from the University of Alberta Health Science Library suggest that more people thought about browsing paper journals than actually did it.)

Dalhousie University medical students learn about electronic literature searches as part of the medical school curriculum. "Students are very adept at using electronic techniques," says Dr. Charles Maxner, an associate professor of medicine. "They're not stuck on paper."

Other strategies for getting information from outside sources include

using CD-ROM databases, colleagues, e-mail and the Internet. In addition, institutions are using consortiums to share dwindling library resources and eliminate duplication across large cities or even provinces.

The University of Alberta's medical library collaborates with provincial hospital, government and college libraries in a network called NEOS, in the Atlantic provinces, Dalhousie and Memorial universities pool their medical library resources, while Ontario has OCUL, the Ontario Council of University Libraries.

Libraries just aren't what they used to be — their role as repositories of large collections is giving way to providing a system that allows researchers to get information quickly, even from far away. And the relationship between library users and information is changing, too.

"Libraries now organize a universe of knowledge and give people access to it," says Shores, "but they do not necessarily house it."

Because of this transformation,

the notion of the "virtual library" is taking shape. Librarians suggest that eventually it won't matter where the information is or who holds it as long as they have a strategy to access it.

Shores is confident libraries will continue to do a good job getting information to people when they need it "but the number of volumes in the library is no longer a measure of the library's strength. Rather, it is the level of satisfaction of the people getting information."

There may be a time lag as those raised on paper libraries get used to the new electronic ones, but CARL's McCallum says: "Everybody's role has been redefined by technology. Either go with the flow, or swim backward against the current."

Dalhousie's Maxner believes everyone is doing the best they can, and he offers his own solution to library cutbacks: "I rarely go to a library now," he declares. "I've picked up different ways to get at things."

